

# WESTERN SUSTAINABILITY AND POLLUTION PREVENTION NETWORK

## EXECUTIVE SUMMARY

The Business Environmental Program (BEP), a partner in the Business Services Group in the College of Business at the University of Nevada, Reno respectfully seeks funding through the U.S. Environmental Protection Agency (US EPA) Fiscal Year 2014 Pollution Prevention Grant Program (EPA-HQ-OPPT-2013-001) to support and expand the activities of the pollution prevention network for US EPA Region 9. The activities of the network will be managed by the Western Sustainability and Pollution Prevention Network (WSPPN) which is administered by BEP.

This proposal supports the goal of pollution prevention (P2) and source reduction by providing up-to-date information, support and guidance materials to state and local technical assistance programs and in some cases directly to businesses in Region 9. Traditionally, the pollution prevention grant (PPG) has complemented the technical training provided in the annual WSPPN conference. While the 2012 conference produced by WSPPN in partnership with CalRecycle was considered a large success and the 2012 needs assessment by WSPPN further confirmed a need for a regional roundtable, funding is not available for a conference in Region 9. Therefore, WSPPN intends to leverage other conferences and build on strengths including connections with national P2 programs in its role as one of the P2Rx Regional Centers. WSPPN will offer training on source reduction techniques via webinars, create new video training modules, and add information resources to the WSPPN website including case studies, best practice materials, and green business checklists. WSPPN also proposes to work with a subcontractor to develop one or more alternative low-VOC, low toxicity alternative floor wax strippers. This proposal seeks funding in the amount of \$180,000 for a two-year project period October 1, 2013 to September 30, 2015.

## PROJECT NARRATIVE

WSPPN's target audience is environmental/P2 and sustainability program personnel in Region 9 states. WSPPN provides a much-needed multi-media forum to facilitate the development and exchange of information, showcase P2 and sustainable activities occurring in Region 9, and assist program development for innovative P2 and sustainability approaches in each of the Region 9 states. WSPPN's goal is to provide training in source reduction techniques and education to develop P2 expertise so programs within Region 9 can provide current technical assistance and advice, assist businesses in the development of source reduction plans, and target assistance to businesses where lack of information is an impediment to source reduction. In some cases, WSPPN will provide direct technical assistance to businesses to assist other P2 programs or fill in the gaps where resources are needed.

Activities outlined in this proposal are ongoing and this proposal seeks to build upon the past work and success of WSPPN to help state and local source reduction and P2 programs maximize the effectiveness of their limited resources. By providing training, networking opportunities and up-to-date information to those technical assistance programs that in turn provide direct assistance to business and industry, WSPPN encourages and supports the further dissemination of multi-media information to reduce the creation of pollutants and reduce or eliminate the use of toxic materials. WSPPN stays current on the needs of the technical assistance community and new information coming out nationally, regionally, and locally to design training programs that keep the region's providers up-to-date.

A 2012 needs assessment conducted by WSPPN was comprehensive and conclusive. The report provided a clear technical direction and roadmap for 2013 and the foreseeable future. WSPPN will use the needs assessment along with results from past WSPPN surveys to continue to build the foundation for Region 9 P2 work.

The 2012 needs assessment identified P2 tools needed:

- Analysis or highlights of P2 impact
- Tools/techniques for changing behaviour
- Measurement tools (calculators) for specific sectors

WSPPN was rated high in terms of customer service, professionalism, quality of services and products and understanding customer needs. When asked how WSPPN might serve the network better, the responses were:

- More webinars
- More participants/fellows in the WSPPN network (expertise to draw from peers)
- Provide outreach and conferences to a larger spectrum of participants
- Leverage with other organizations and "like minded groups" sharing resources unifying in purpose
- Increased focus on collaboration between wastewater, CUPA, and solid waste



Many of the above suggestions are already being incorporated into the WSPPN program. WSPPN will leverage past experience from delivering a conference for the region and will use past attendance lists as a starting point for further marketing the network. By providing up-to-date information, tools, replicable initiatives, and best practices – with a focus on developing content for the priority P2 sector focus areas – network participants will be able to return to the field to better promote P2 to those sector focus areas.

#### **Environmental and Public Health Concerns:**

WSPPN's broad-based multimedia activities all support EPA's national focus areas of reducing the manufacture and use of hazardous materials; reducing the use of water and conservation of other natural resources; creating business efficiencies that derive economic benefits and improve environmental performance; and integrating P2 practices through government services, policies and initiatives. WSPPN activities supporting the topic hubs on the P2Rx network, leadership role in the West Coast States Environmentally Preferable Purchasing (EPP) Collaborative, and partnerships with organizations like the small business development centers in Nevada all support the Region 9 P2 priorities to provide sector-focused information and assistance. This assistance includes information and guidance for hospitality including lodging and sports venues; source reduction for product packaging; product redesign including alternatives to chemicals; development of student intern programs; and institutionalization of P2 in government purchasing through EPP strategies and initiatives. We will address these topics in training including design of conference sessions, seminars, and webinar trainings.

#### **Promote Business Efficiency:**

WSPPN will contribute toward these priority areas by providing training seminars and technical and policy sessions through participation in conferences, design of seminars and webinar trainings that provide cutting-edge information to be used by the technical assistance community throughout the region. These efforts support local, state and federal government pollution prevention goals and efforts which, in turn, cultivate P2 implementation by businesses. WSPPN is highly in tune with the issues and challenges facing Region 9, particularly through its advisory board. The broad makeup of the WSPPN Advisory Board and its constituencies reflect many of the regional programs addressing a wide variety of issues affecting all environmental media: land, water and air. To promote pollution prevention and sustainability, the WSPPN network provides a valuable forum for representatives of environmental and sustainability programs in Region 9 to meet, learn, discuss, exchange sustainability/pollution prevention information and address issues affecting businesses and communities in Region 9.

#### **Engage Partners in P2 Grant Work (Partnerships):**

The essence of WSPPN is partnership. The Network consists of small business development centers (SBDCs), for profit and not-for-profit organizations, federal and state agencies, academia, local governments, and tribes. Partnerships and collaborations will continue to be a central focus for WSPPN providing a forum for all entities to share, exchange, and discuss issues which are relevant to the goals and objectives of WSPPN and its respective constituents. Over 175 environmentally-based organizations have participated in the annual conference and network since 2000. The reach of these organizations extend throughout the Region 9 states as well as elsewhere in the U.S. and Mexico. Collectively, these programs influence hundreds of communities and thousands of businesses. WSPPN is proud of its success in the fostering and cultivation of partnerships and collaborations throughout Region 9 P2 programs. For instance, WSPPN has provided support for Green Business programs in California; WSPPN has a partnership with the Washoe County Air Quality District and the Rocky Mountain Fleet Managers Association; and WSPPN is administered by BEP which provide multi-media P2 and sustainability technical assistance to businesses and government entities throughout Nevada.

The initiatives proposed by WSPPN are guided and supported by the WSPPN advisory board made up of 18 state and local P2 agencies within the region. The advisory board represents a wide range of constituencies addressing a wide variety of issues affecting all environmental media: land, water and air. The membership includes representatives of regional governments (local, state, and federal), education, regulatory and non-regulatory programs, air districts, stormwater and POTW agencies, and not-for-profit organizations. The advisory board members offer their valuable time and expertise to help make sure WSPPN activities and programs are designed to provide the maximum benefit to local, state and federal programs (including tribal programs) in support of their efforts to satisfy P2 and source reduction goals written into their respective strategic plans.



WSPPN is currently working in partnership with the West Coast Environmentally Preferred Purchasing (EPP) Collaborative (which includes the states of HI, CA, OR, WA, and CO) to establish EPP criteria in multi-state purchasing contracts. Other workgroups include green lodging and collaboration with NEWMOA in the development of the Sustainable Lodging website to connect sustainability managers for lodging operations on a national level and facilitate the exchange of information and ideas of practitioners in real-time through the use of social networking. WSPPN also works collaboratively with the P2Rx network; supporting national efforts with respect to hospitality, environmentally preferable purchasing, casino and tribal education, and P2 marketing.

#### **Support P2 Projects for Region 9:**

All the projects outlined in the program align with US EPA's 2010-2014 Pollution Prevention Program Strategic Plan and will also specifically address Region 9's priorities to provide sector focused information and assistance specifically for hospitality including lodging and sports venues; source reduction for shipping or product packaging; product redesign including alternatives to chemicals; and institutionalization of P2 in government purchasing through EPP strategies and initiatives. WSPPN already possesses the network and knowledge to support these regional priorities as an active participant in the national Pollution Prevention Resource Exchange (P2Rx) and the West Coast States Environmentally Preferable Purchasing (EPP) Collaborative. For example, through participation in P2Rx, WSPPN has been responsible for developing and maintaining a "topic hub" with web-based information and guidance materials to promote P2 and source reduction for the hospitality industry. As a partner in the P2Rx community, WSPPN has access to other topic hubs and content providers for additional sectors.

### **PROGRAMMATIC CAPABILITIES**

#### **Past Performance:**

In addition to offering a pollution prevention and sustainability conference in the region for 20 years, BEP has successfully implemented programs which have received funding through federal funding mechanisms, 14 from EPA, and 4 from the Small Business Administration (SBA), specifically under SBA's Small Business Sustainability Initiative.

**Western Sustainability & Pollution Prevention Network** (Eleven grants from EPA): Three 1- year work plan funding allocations to support the regional conference and P2 Results measurement activities from October 2006 through March 2010, one 18-month grant awarded October 2009, and one 13-month SRA grant to support the 2012 joint conference with CalRecycle. Three 1-year work plan funding allocations to support the WSPPN P2Rx website resources and webinars from October 2006 through December 2009, and two 2- year funding grant for similar activities awarded October 2009 and 2011. This funding supported BEP's participation in the Pollution Prevention Resource Exchange (P2Rx), and support of a strategic alliance of pollution prevention programs in Region 9. WSPPN has traditionally hosted an annual pollution prevention conference, provided website resources and topic hubs, free webinars, and a listserv to facilitate information exchange and communication, and has coordinated and implemented projects in cooperation with other P2Rx centers. All required semi-annual reports, additional grant condition quarterly reports, and final reports have been submitted. As indicated earlier this proposal, conferences have been held annually.

**NvP2 Pollution Prevention Grant** (Three consecutive grants from R9 EPA): Funding from EPA allowed BEP to conduct outreach and provide pollution prevention technical assistance to business and government entities via the phone, email, on-site consultations, informational publications, a website, and training seminars. During 2012, BEP wrapped up work conducted under a three year grant to provide pollution prevention technical assistance to businesses and government operations in Nevada, and initiated work on a new 2-year grant. In addition to broad ranging assistance these grants support focused work with hotel/casinos, hospitals, and automotive/fleet maintenance. In 2012, BEP had 1,416 phone assistance requests, 133 on-site consultations and 1,158 people attend training seminars. BEP assesses program effectiveness every two years. BEP's 2012 assessment of effectiveness found that 91% of businesses indicated that the information BEP provided was easy to understand and helpful, 72.2% maintained or improved compliance with hazardous waste management requirements. 78.6% indicated that BEP had helped them improve operations or processes at their facility, and 85.7% indicated that BEP had helped them become more aware of other environmental, health, and safety regulations that impact their operations. In the fiscal year of 2011 – 2012 program clients reported reducing hazardous & industrial waste generation by approx. 56,000 lbs and saving \$202,000. Quarterly reports provided information on project deliverables, milestones, outputs, and outcomes.



**Small Business Sustainability Initiative** (four grants received from SBA): Beginning in 2009, BEP was one of four Small Business Development Center programs selected nationally for SBA pilot funding to provide energy efficiency assistance to small businesses. Focusing on Northern Nevada, the project has employed an 87 percent FTE energy management specialist who provides small business energy audits and works with small businesses or property owners to assist with the implementation of recommended energy efficiency measures. All reporting has been completed as required and the grant is in its final option year.

#### **Staff Qualifications:**

**Chris Lynch** is the Director for the Business Environmental Program. Mr. Lynch is a nationally recognized expert on small business environmental and energy issues. Prior to joining UNR's BEP in January 2011, he launched and managed a similar program for 13 years at the Wharton School of the University of Pennsylvania. He has previously held an appointment as a Senior Fellow at Wharton for the Initiative for Global Environmental Leadership and has served as an advisor to organizations including the Center for the Small Business and the Environment, Environmental Defense Fund, the Pennsylvania Recycling Markets Center, and the Pew Center on Global Climate Change. Mr. Lynch will provide overall management direction for the activities of the WSPPN network.

**Donna Walden** will have primary responsibility for planning and organizing the activities of the WSPPN network including organizing meetings of the WSPPN Advisory Board and strengthening the network through coordination and joint marketing activities. Walden joined BEP as WSPPN Regional Coordinator in March 2010. She has over 20 years' experience in global marketing; working with large Fortune 500 companies and start-ups alike to build a market presence worldwide. Ms. Walden has run several not-for-profit organizations. She was the first Executive Director for Electronic Design Automation Consortium (EDAC) – 1990-1997. There she built the organization from a \$150,000 year annual budget to \$750,000 annual budget using a membership dues structure. As Executive Director for Sierra Green Building Association (2009-2010), she launched their 1<sup>st</sup> annual Tahoe greenFEST expo and ran the event for 2 years.

**John Handzo** is the P2 Projects Manager. Mr. Handzo joined BEP in 2007. He has seventeen years of publically operated treatment work (POTW) pretreatment program experience, and more recently, over 5 years' experience working with the VA Dept. of Environmental Quality's Pollution Prevention Program as their Resource Conservation Specialist. Mr. Handzo will provide support for the WSPPN network by posting information on the WSPPN website, and managing the student involved with website support.

#### **WORK PLAN**

**Strategy:** WSPPN's target audience is environmental/P2, and sustainability program personnel in Region 9 states. WSPPN's goal is to provide training in source reduction techniques and education to develop P2 expertise so that programs within Region 9 can provide technical assistance and advice, assist businesses in the development of plans to reduce or eliminate waste at the source, and target assistance to businesses where lack of information is an impediment. Education and training provided at the WSPPN programs also support efforts of these personnel to implement P2/sustainability programs that make their operations, communities, or states more sustainable. By expanding the knowledge base of personnel from these programs, through year-round technical sessions, trainings, videos, and webinars, WSPPN directly and indirectly influences pollution prevention/sustainability efforts among thousands of businesses throughout Region 9. Experience has shown that WSPPN conference, webinar, and videoconferencing participants are well prepared to apply the P2 information they receive and to work with businesses and their own operations to implement source reduction practices. We are proposing to expand the training to an ongoing curriculum accessible to technical assistance providers everywhere. Programs will be interactive enabling input, sharing of knowledge and encouraging broader participation from the region.

It is important that WSPPN continue to provide foundational P2 and source reduction training and educational services for the region's technical assistance community. Prevention and source reduction continue to be important for the reason that the P2 Act was established in the first place – i.e., it is much less expensive and more effective to prevention pollution than to clean up after the fact. Consistent and quality P2 programs are needed. Some of the traditional powerhouse agencies have focused their attention away from P2, and this has provided a gap in Region 9 in terms of funding, leadership for multi-agency programs and workgroups. WSPPN can play a role to help stabilize some of the already established programs that are still needed.



## **Development of Technical Content for Region 9 Programs:**

WSPPN will leverage its past experience and feedback from the 2012 needs assessment to evolve and improve the network value. WSPPN technical programs have focused (and will continue to do so) on subjects identified by regional programs as critical to the success of their technical assistance efforts or their own sustainability implementation. The work to develop the ongoing technical education program (webinars, workshops and trainings) will consider and address EPA's focus areas of greenhouse gas (GHG) emission reduction to mitigate climate change, reduce the manufacture and use of hazardous materials to improve human and ecological health, reduce the use of water and conserve other natural resources to protect ecosystems, create business efficiencies that derive economic benefits and improve environmental performance. WSPPN ensures that in its programs, where applicable, a health component is added to emphasize the strong correlation between the status of the environment and the public's overall health.

The 2012 Used Oil + HHW + WSPPN training and conference addressed many EPA Region 9 P2 priorities by including sessions on emerging chemicals and nanotechnology, low impact storm water design and maintenance, controlling hazardous chemicals in products, green lodging, greening operations, electronic waste, behavior change, green purchasing and more. Topics identified as important from the 2012 needs assessment include: P2 measurements, sustainability, toxics, E-waste, environmentally preferable purchasing/green purchasing, lean and green manufacturing, consumer products, green chemistry, green business programs, emerging technologies (including Nanotechnology), extended producer responsibility, hospitality and P2 enforcement. The FY 2014 proposal addresses current Region 9 priorities including electronics design for the environment, hospitality sector including restaurants, lodging and sports venues, and a heavy focus on green business programs that specifically target small businesses that can be scaled to state-wide, regional or national.

## **Proposed Tasks:**

### **Task 1 – Host WSPPN Advisory Board Meetings**

WSPPN proposes to revamp its advisory board. We have had tremendous support and participation by board members; however, some agencies have departed from P2 and there has been a turnover of other staff in some agencies. WSPPN will initiate a nomination process and select a new board that is best able to support the initiatives approved in a 2013-2014 grant program. WSPPN will continue to hold one board meeting per quarter.

### **Task 2 –Network Outreach and Marketing / Continue to Expand WSPPN Partnerships**

One of the clear functions of the WSPPN network is to expand partnerships within the region. WSPPN has connected with many organizations through its conference activities and a concerted outreach program. WSPPN will continue to expand partnerships during 2014 by co-marketing with other sustainability organizations, joint training and networking at conferences, and cross-branding.

During EPA FY 2012-2013, many new meaningful partner connections were made including San Diego Regional Sustainability Partnership (SDRSP), GreenBiz.com, Coachella Valley Partnership, University of Arizona Sustainability program and University of Arizona Superfund Research Program, CalRecycle, California Department of General Services, CAL CUPA Forum, California Green Business Program Network, San Francisco Department of Public Health, San Francisco Department of Environment, Paintcare, and individual connections with sustainability businesses too numerous to count. There are many other organizations that WSPPN intends to develop partnerships with in 2014.

WSPPN will continue to use a tiered approach for partnership outreach:

- Tier 1 – face-to-face meetings
- Tier 2 – telephone conversation(s)
- Tier 3 – added to the P2 Directory, WSPPN newsletter list and other P2 communications



### **Task 3 – P2 Training Certificate Program**

WSPPN successfully launched the P2 Certificate Program in September 2012. To date, more than 30 people have registered for the program where they receive a (non-accredited) certificate for the hours spent on webinars and trainings throughout Region 9. This program nicely puts together the training WSPPN provides including conference sessions, workshops and webinars and addresses a need for training during a time when state programs have fewer resources for such activities. For information and rules: <http://wsppn.org/p2-training/p2-certificate-registration/>.

During 2014, we will continue this popular program. WSPPN will add a social media element such as “tweeting” training reminders to the group a few days in advance. We will continue to promote the program to expand enrollment. We can spot check participants to see if attending more webinars and P2 trainings result in meaningful behavior change. We can also collect satisfaction data by encouraging blogging on specific events.

### **Task 4 – Webinars**

The 2012 needs assessment clearly identified that webinars are desired as a form of ongoing year-round training, even though respondents also strongly supported the notion of an annual conference since webinars cannot provide the level of personal interaction, networking, and information-sharing only an in-person conference can. Eighteen webinars hosted by WSPPN during the past three years have addressed many of the technical priority topics identified. WSPPN webinars have been popular with hundreds of attendees from across the board including P2 TAPs and many end users (i.e., health departments, municipalities, manufacturers, and parks). Webinars are one opportunity for WSPPN to have direct contact with businesses and the survey results are conclusive in terms of identifying participants and measures.

We will develop four to six new webinars during FY 2014 based upon EPA’s strategic plan and the WSPPN 2012 needs assessment. Part of the program will be to connect with a sample of the participants several months after the webinars to measure actual behavior change.

### **Task 5 – Annual P2 Week Video Contest**

The 3<sup>rd</sup> annual P2 Week Video contest cohosted by WSPPN and DTSC in 2012 was a success. There were 24 entries; six (25%) directly attributable to WSPPN outreach. The winning video had just under 500 views. The 14 & under video had 674 views. The promotion video for the 2012 contest had almost 1,200 views. In total, the promo and videos had over 7,200 views. Winners from the following categories were announced and displayed on the WSPPN site:

*Overall winner:* <http://www.youtube.com/watch?v=Mh1lhFlzUy4>

*Best Video submitted By 14 Year Old or Under:* <http://www.youtube.com/watch?v=5Jy64Bei5Fw>

*Best entry produced by business, school, organization:* <http://www.youtube.com/watch?v=nT0vRCZeAnI>

*Best entry Comedy:* <http://www.youtube.com/watch?v=8Qxy50YPcsc>

One of the commentators, Nonita from the Great Lakes Roundtable said: “Thank you very much for sharing this. I will make sure to introduce the set to my students in Industrial Ecology next winter.” We expect to continue to partner with DTSC for a 4<sup>th</sup> annual video contest in FY 2014.

### **Task 6 – Basic P2 Training for Current Network and Future Generations**

During the 2012 needs assessment, it was determined that some basic training was needed for the region. In particular, basic P2 101 training was requested by Arizona and other states to address a continuous turnover of P2 program managers at manufacturing facilities and a need for online resources. In response, WSPPN designed a P2-101 Training Course for the 2012 conference that was separated into short modules ideal for placement on the WSPPN site.

#### **P2-101 (videos completed)**

Ten video modules were created from the 4-hour training at the 2012 Used Oil + HHW + WSPPN training and conference. The training and videos provide participants with little knowledge of P2 or who want a refresher course, on basic concepts of P2 including material substitution, green purchasing, process efficiency, green design, cost analysis and ROI, root cause analysis, and implementing behavioral change. Other P2 training links were added to the WSPPN website. See <http://wsppn.org/p2-training/p2-101-basic-training/>. Mr. Leonard Ortolano, Professor of Civil Engineering at Stanford University, is using the materials to prepare a lecture on P2 in March 2013. During last quarter, there were 1,329 page views to the P2 video website.



Other training modules and videos identified that address top priorities for Region 9 will be developed in FY-2014.

#### **Green Chemistry 101 Training and Video Modules (2014)**

WSPPN intends to partner with the American Chemical Society (ACS) on developing green chemistry 101 video training modules. WSPPN may also do some half-day workshops around the region. The workshops and the video modules will introduce the concepts of green chemistry, show real-world examples, and make the business case for green chemistry. Participants learn about safer chemical alternatives, metrics for comparing the "greenness" of chemicals and processes, and resources available.

#### **Task 7 – Facilitate Development of Safer Floor Wax Stripping Products**

Floor wax stripping products are used in thousands of commercial buildings, schools and hospitals to maintain the look and integrity of floors. These products often contain solvents which are Volatile Organic Compounds (VOCs) that contribute to photochemical smog. Many of the solvents are also toxic and can cause central nervous system problems for janitors who apply them, tenants of the buildings, patients, visitors and staff in hospitals, and children and teachers in schools. The VOC emissions from floor wax stripping products used in California are estimated at more than eight tons per day.

WSPPN is proposing to subcontract a project that would involve developing one or more alternative low-VOC, low toxicity alternative floor wax strippers. WSPPN's involvement would be to manage the progress of this project, help promote the results including development of case studies, webinar and other outreach.

The project would involve several tasks which are described below:

- collect and analyze information on currently used floor wax stripping products
- work with one or more formulators to develop potential alternative products
- conduct preliminary testing of a range of potential alternatives on typical floor panels containing various waxes
- select best performing candidates for field testing
- pilot test candidate alternatives in one school and one public building
- conduct cost analysis and comparison of alternatives and currently used strippers
- prepare report on the results of the project

The pilot project would require 12 months to complete and WSPPN is requesting cash funding of \$75,000 from EPA. The contractor would work with formulators who would donate formulations for testing and time to develop the alternatives at no cost. The facility staff at the school and public agency participating in the project testing would provide their time at no cost. SCAQMD would also participate in the project and provide an in-kind contribution for determining whether the candidate formulations meet their voluntary certification program requirements.

WSPPN also envisions an extension of the pilot project so the benefits of the testing results could be more widely applicable. WSPPN plans to seek additional cash funding of \$75,000 from various sources to expand and scale up the pilot project. This extended project would involve developing/testing safer alternatives with five additional facilities that could include more schools and public agencies and perhaps a hospital. Involving more facilities in the testing ensures that a larger range of floor types, preferences, practices and challenges would be resolved so the findings would be more transferrable. The contractor would also work with suppliers to assist them in commercializing the safer products or other similar products.

There are several benefits of developing safer alternative floor wax stripping products. First, and most important, use of the alternatives would better protect building tenants, patients, visitors, school children, teachers, janitors and the surrounding community. Second, safer low-VOC products could be certified by SCAQMD in the janitorial product program which would lead to more widespread use.

#### **Task 8 – Organize One-Day Green Chemistry Training in Southern California**

WSPPN proposes to organize one-day training on green chemistry in the Southern California region using the facilities of the South Coast Air Quality Management District. This will be a basic green chemistry training providing information



on chemicals in products and possible alternatives to harmful chemicals. This will be targeted at manufacturers but technical assistance providers will also be invited. We will survey attendees to see whether they believe that they can modify any of their processes and whether they intend to utilize any of the information from the training.

## ENVIRONMENTAL MEASURES

### Demonstrate Measurable Environmental Results

By working with the state and local programs to identify, measure and track improvements that result from their direct technical assistance activities, not only does WSPPN report output measures, it also tracks and reports outcome measures that support the achievement of pollution reduction, source reduction, and hazardous materials numerical reduction targets outlined in EPA's Strategic Plan.

WSPPN collects impact data resulting from its active grants and from past conferences and webinars through evaluations and follow-up reporting by P2 program participants. This data has been entered that data into the National P2 Results Data System for 2004-2009. The data is developed by WSPPN requesting feedback from conference participants, webinar participants, and other network participants on the portion of their P2 results that they attribute to information they receive the network. Using this as the basis, WSPPN has attributed 10 percent of the measurement data submitted by Region 9 programs as attributable to P2 information and resources provided by WSPPN. WSPPN estimates half of the overall 10 percent impact (or 5 percent) as attributable to the conference information and resources, and the other 5 percent attributable to the WSPPN website information and its other PPIN-funded resources and information.

Using data reported to date by Region 9 P2 programs for 2009, and the estimate of 5 percent of measurement data provided by regional programs being attributable to information and resources provided through WSPPN including its website content, webinars, and information disseminated via the P2Rx network, outcomes represent:

- Hazardous Materials -- 81,289 lbs. reduced annually
- Hazardous Wastes -- 9,800 lbs. reduced annually -- savings \$15,295
- Solid Waste -- 3,797,008 lbs. reduced annually -- savings \$162,527
- Air Toxics Emissions -- 26,000 lbs. reduced annually
- GHG emissions -- 338,000 lbs. reduced annually
- Kilowatt Hours -- 281,209 reduced annually -- savings \$17,267
- Water -- 1,273,600 gallons conserved per year -- savings \$2,293

**Calculation Outcome Results:** All collected data will be entered into the National P2 Results Data System. The Data System already has the built-in calculators programmed into its design. The calculators have been reviewed and approved by over a dozen Technical Assistance Programs (TAPs) from EPA Headquarters, members of the National Pollution Prevention Roundtable (NPPR), and Department of Energy (DOE). WSPPN will use the same calculators (for each category) that programs from the entire nation have been using for the last eight years.

The table below identifies outputs and the estimated measurement accomplishments WSPPN expects to achieve from this grant work plan.

Output Measures (2-year period)	Estimated Outcome Measures
<ul style="list-style-type: none"> <li>• Six to Eight Advisory Board Meetings</li> <li>• At least Six Free Webinars</li> <li>• Webinar Attendance and Evaluations</li> <li>• Ten 5-20 minute video modules (green chemistry 101)</li> <li>• 4<sup>th</sup> Annual P2 Video Contest</li> <li>• Continuation of training certificate program (identifying P2 programs in Region 9 and developing an ongoing curriculum with educational credits awarded) -- WSPPN will track number of participants and hours they achieve.</li> <li>• One report on safer floor wax stripping products</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization of conference and webinar information reported in evaluations</li> <li>• At least 50,000 lbs. of hazardous materials reduced;</li> <li>• At least 100,000 kWh of energy conserved;</li> <li>• At least 100,000 gal of water saved</li> <li>• At least \$1,000,000 saved in aggregate from all source reduction activities</li> </ul>